

**IN THE CLAIMS:**

Please amend claims 1 through 13, as indicated hereinbelow.

Please insert new claims 14, 15, 16, 17 and 18, as indicated hereinbelow.

1. (Currently Amended). A method for implementing a database, comprising the steps of:

[[ - ]] (a) providing at least one set of linked entities in the database, wherein the at least one set of linked entities contains a plurality of entities and each said entity in the said plurality of entities is arranged to store at least one data value;

[[ - ]] (b) providing an additional entity in the said database for [[the]] said at least one set of linked entities; and

[[ - ]] (c) storing in the additional entity the aggregation of a plurality of data values contained in the said at least one set of linked entities[[.]], whereby the aggregated data values may be obtained by performing a read operation on the additional entity.

2. (Currently Amended). A method for modifying a database having at least one set of linked entities, wherein the at least one set of linked entities contains a plurality of entities and each said entity in the plurality of entities is arranged to store at least one data value, the method comprising the steps of:

[[ - ]] (a) providing an additional entity in the database for the said at least one set of linked entities; and

[[ - ]] (b) storing in the said additional entity the aggregation of a plurality of data values contained in the said at least one set of linked entities[[ . ]], whereby the aggregated data values may be obtained by performing a read operation on the said additional entity.

3. (Currently Amended). A method for reading from a database, the said database comprising:

[[ - ]] (a) providing at least one set of linked entities, wherein the said at least one set of linked entities contains a plurality of entities and each said entity in the said plurality of entities is arranged to store at least one data value; and

[[ - ]] (b) providing an additional entity in the said database for the said at least one set of linked entities, the said additional entity comprising the aggregation of a plurality of data values stored in the said at least one set of linked entities;

~~whereby the plurality of data values contained within the at least one set of linked entities may be obtained by performing a single read operation on the additional entity.~~

(c) performing a single read operation on the said additional entity, whereby the plurality of data values contained within the said at least one set of linked entities may be obtained.

4. (Currently Amended). A method in accordance with Claim 3  
[[or 4]], comprising the further step of:

(d) determining the read/write ratio of the said  
database.

5. (Currently Amended). A method in accordance with Claim 4,  
wherein step (d) comprising includes the steps of:

[[ - ]] (d1) providing data with regard to the time  
taken to perform a read operation and a write  
operation on a first implementation of the said  
database;

[[ - ]] (d2) providing data with regard to the time  
taken to perform a read operation and a write  
operation on a second implementation of the said  
database;

[[ - ]] (d3) calculating a read time difference  
between the time taken to perform a read operation  
on [[a]] said first implementation of [[a]] said  
database and [[a]] on said second implementation  
of [[a]] said database;

[[ - ]] (d4) calculating a write time difference  
between the time taken to perform a write  
operation on [[a]] said first implementation of  
[[a]] said database and [[a]] on said second  
implementation of [[a]] said database; and

[[ - ]] (d5) calculating the ratio between the read  
time difference and the write time difference to  
determine the read/write ratio for the said  
database.

6. (Currently Amended). A system for reading from a database, comprising:

[[ - ]] (a) a database means arranged to contain at least one set of linked entities, wherein the said at least one set of linked entities contains a plurality of entities and each said entity is arranged to store at least one data value;

[[ - ]] (b) means for providing an additional entity for the said at least one set of linked entities, the said additional entity comprising the aggregation of a plurality of data values stored in the said at least one set of linked entities; and

[[ - ]] (c) reading means arranged to read the said plurality of data values contained within the said at least one set of linked entities by performing a read operation on the said additional entity.

7. (Currently Amended). A system for implementing a database, comprising:

[[ - ]] (a) means for providing at least one set of linked entities in the said database, wherein the said at least one set of linked entities contains a plurality of entities and each said entity in the said plurality of entities is arranged to store at least one data value;

[[ - ]] (b) means for providing an additional entity for the said at least one set of linked entities; and

[[ - ]] (c) storing means arranged to store, in the said additional entity, the aggregation of a plurality of data values contained in the said at least one set of linked entities[[ , ]];

(d) reading means enabled to read said aggregation of a plurality of data values by performing a read operation on the said additional entity.

8. (Currently Amended). A system for modifying a database having at least one set of linked entities, wherein the at least one set of linked entities contains a plurality of entities and each said entity in the said plurality of entities is arranged to store at least one data value, comprising:

[[ - ]] (a) means for providing an additional entity in the said database for said at least one set of linked entities; [[ and ]]

[[ - ]] (b) storing means arranged to store, in the said additional entity, the aggregation of a plurality of data values contained in the said at least one set of linked entities. ~~wherein;~~ and

(c) a reading means which can be enabled to read the aggregated data values by performing a read operation on the said additional entity.



9. (Currently Amended). A method for determining a read/write ratio for a database, comprising the steps of:

[[ - ]] (a) providing data with regard to the time taken to perform a read operation and a write operation on a first implementation of [[ the ]] said database;

[[ - ]] (b) providing data with regard to the time taken to perform a read operation and a write operation on a second implementation of [[ the ]] said database;

[[ - ]] (c) calculating a read time difference between the time taken to perform a read operation on a first implementation of a database and on a second implementation of [[ a ]] said database;

[[ - ]] (d) calculating a write time difference between the time taken to perform a write operation on a first implementation of [[ a ]] said database and on a second implementation of [[ a ]] said database; and

[[ - ]] (e) calculating the ratio between the read time difference and the write time difference to determine the read/write ratio for [[ the ]] said database.

10. (Currently Amended). A method in accordance with Claim 9, wherein the first implementation of ~~[[a]]~~ said database ~~comprises~~ utilizes at least one set of linked entities.

11. (Currently Amended). A method in accordance with Claim 9 ~~or Claim 10~~, wherein ~~[[the]]~~ said second implementation of ~~[[a]]~~ said database ~~comprises~~ utilizes an aggregation of all data values stored in the said at least one set of linked entities.

12. (Currently Amended). A computer program arranged, when loaded on a computing system, to implement the method ~~of any one of Claims 1 to 5.~~ of Claim 1.

13. (Currently Amended). A computer readable medium providing a computer program in accordance with ~~Claim 12.~~ the method of Claim 9.

14. (New). A computer program arranged, when loaded on a computing system, to implement the method of Claim 2.

15. (New). A computer readable medium providing a computer program in accordance with Claim 7.

16. (New). A computer readable medium providing a computer program in accordance with Claim 3.

17. (New). A computer readable medium providing a computer program in accordance with Claim 5.

18. (New). The method of claim 9 which includes the steps of:

- (f) establishing a critical Read/Write Ratio;
- (g) utilizing said critical Read/Write Ratio to increase performance in said database.